

WHAT IS CLAIMED IS:

1. A plant for the drying and treatment of a pourable mineral material, comprising:
 - a rotary drum for conveying the pourable mineral material and including a drum casing, an introduction region, and an outlet end, the rotary drum being inclined in a conveying direction of the pourable mineral material and including a plurality of transport blades disposed in an introduction region of the drum;
 - a bypass disposed in the drum casing at the introduction region for conveying air;
 - a shaft in sealing connection with the outlet end and configured to receive the pourable mineral material from the rotary drum;
 - a combustion apparatus emitting smoke gases through the rotary drum cocurrently with the pourable mineral material;
 - a fan providing a vacuum in the shaft; and
 - a Venturi fitting disposed coaxially in the rotary drum upstream of the outlet end.
2. The plant as recited in claim 1, wherein the fan has a variable rotational speed.
3. The plant as recited in claim 1, wherein the Venturi fitting includes guide surfaces covering only a portion of a circumference of the Venturi fitting.
4. The plant as recited in claim 1, wherein the rotary drum includes an inlet end in sealing connection with the combustion apparatus.
5. The plant as recited in claim 1, wherein the rotary drum includes an inlet end and wherein the bypass includes:
 - at least one first orifice formed in the drum casing at a distance downstream of the inlet end;
 - a plurality of second orifices formed in the drum casing and distributed over the circumference of the drum;
 - a first gas-tight box disposed on the drum casing over the circumference of the drum covering the plurality of second orifices;
 - a double casing;

a second circumferential box disposed upstream of the first gas-tight box and connected to the first gas-tight box via an annular gap between the drum casing and the double casing; and

at least one third orifice disposed in the second circumferential box and communicating with an exterior of the second circumferential box, the at least one third orifice being closed using a flap prestressed in an outward direction of the at least one third orifice so as to inwardly seal off the at least one third orifice.

6. The plant as recited in claim 5, wherein the first and second circumferential boxes and the double casing include a thermal insulation toward the surroundings.

7. The plant as recited in claim 5, further comprising a plurality of second blade units disposed downstream from the transport blades and disposed on an inner circumference of the drum, each of the plurality of second blade units including a plate bent in a longitudinal direction of the drum so as to form a plurality of pockets.

8. The plant as recited in claim 5, wherein the drum includes two circumferential rings spaced apart in a longitudinal direction of the drum, a rotary drive engaging the two circumferential rings, and a stop wheel rotatably mounted at a fixed location and engaging at least one of the circumferential rings.

9. The plant as recited in claim 5, further comprising a discharge device disposed below the shaft for a granular component of the pourable mineral material and a transferring device disposed above the shaft for transferring a portion of the pourable mineral material to a dedusting plant, and wherein an upwardly directed gas stream is formed in the shaft.

10. The plant as recited in claim 9, further comprising at least one silo disposed downstream of the discharge device for granular and fragmentary components of the pourable mineral material and at least one silo disposed downstream of the dedusting plant for a dust component of the pourable mineral material.